

PAT-NO: JP02000278628A

DOCUMENT-IDENTIFIER: JP 2000278628 A

TITLE: RECEIVER

PUBN-DATE: October 6, 2000

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APPL-NO: JP11077606

APPL-DATE: March 23, 1999

INT-CL (IPC): H04N005/60, H04M001/00 , H04M011/02 , H04N005/44

ABSTRACT:

PROBLEM TO BE SOLVED: To surely avoid a bothering audio signal of a television receiver to a phone call even on the occurrence of the phone call while a user views the television and to eliminate a trouble that the phone call is interrupted when viewing a television program.

SOLUTION: This television receiver is provided with a telephone set state detection section 2 that detects a state of a telephone set T and with a signal processing section 4 that processes a volume reduction of an audio signal in a television basic function section 3 in an ON state when the telephone set state detection section 2 detects the arrival of an incoming call to the telephone set T or start of the use of the telephone set T and processes the sound volume to be restored to a state before the use of the telephone set T is started when detecting the end of the use of the telephone set T.

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CLAIMS

[Claim(s)]

[Claim 1] The receiving set characterized by to have the signal-processing section which performs the processing to which the aforementioned volume returns to the state before the beginning of using of the aforementioned telephone if the signed off of the aforementioned telephone detects while performing the processing to which the volume of the voice in the television basic function section of an ON state reduces, if the telephone state detecting element which detects the state of telephone, and this telephone state detecting element detect the arrival or the beginning of using of the aforementioned telephone.

[Claim 2] The aforementioned telephone state detecting element is a receiving set according to claim 1 characterized by detecting the signed off of the aforementioned telephone while detecting the arrival or the beginning of using of the aforementioned telephone from the circuit signal of the telephone line which has the line connection section which connects the telephone line, and connected with this line connection section.

[Claim 3] The aforementioned signal-processing section is a receiving set according to claim 1 characterized by having the text display function section which displays the reduced voice concerned on the screen of the television basic function section in a character based on having reduced the aforementioned volume.

[Claim 4] The aforementioned text display function section is a receiving set according to claim 3 characterized by changing the reduced sound signal concerned in the period in which the aforementioned volume was reduced into an alphabetic data, and displaying on the aforementioned screen based on this alphabetic data.

[Claim 5] The aforementioned signal-processing section is a receiving set according to claim 1 characterized by to have the storage processing section which memorizes the image data concerning the video signal corresponding to the voice data concerning the reduced sound signal concerned in the period in which the aforementioned volume was reduced, and/or the sound signal concerned, and the regeneration function part which reads the voice data and/or the image data which were memorized in the storage processing section concerned, and is reproduced by the aforementioned television basic function section.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] this invention relates to the receiving set by which the television basic function section (television-receiver main part) is controlled corresponding to the state of telephone.

[0002]

[A background and a technical problem] At ordinary homes etc., if a television receiver is in a state as it is when the telephone call has been got during viewing and listening of a television receiver, it is not rare for the voice of a television receiver to become obstructive and to cause trouble to reception of a telephone, either.

[0003] For example, when telephone is put on rooms, such as the same living as a television receiver, or when the so-called telephone is far, with the voice of a television receiver, a partner's voice cannot be caught, but trouble is made to a partner as a result, or the problem which hears important business wrong is produced (when a partner's voice is small). Especially this problem is no longer avoided from it becoming impossible to operate a television receiver by appearing in a telephone, when viewing and listening to a television receiver alone.

[0004] Moreover, for the televiwer who appeared in the telephone, during reception of a telephone, since viewing and listening of a television receiver will be interrupted, the problem which overlooks a program to watch by telephone got suddenly is also produced.

[0005] this invention solves the technical problem based on such a background, and even if it is the case where the telephone call has been got during viewing and listening of a television receiver, while the voice of a television receiver can avoid certainly the fault which becomes obstructive, it aims at offer of the receiving set which enabled it to cancel the fault accompanying viewing and listening of a television receiver being interrupted.

[0006]

[A The means for solving a technical problem and the gestalt of operation] If the receiving set 1 concerning this invention detects the arrival (a call start is included) or the beginning of using of Telephone T by the telephone state detecting element 2 which detects the state of Telephone T, and this telephone state detecting element 2 While performing processing to which the volume of the voice in the television basic function section 3 of an ON state is reduced If the signed off (it includes that a call stops before starting to use Telephone T, after the call by arrival of the mail and) of Telephone T is detected, it will be characterized by having the signal-processing section 4 which performs processing to which volume is returned to the state before the beginning of using of Telephone T.

[0007] In this case, according to the gestalt of suitable operation, the telephone state detecting element 2 has the line connection section 12 which connects the telephone line 11, and it detects the signed off of Telephone T while it detects the arrival or the beginning of using of Telephone T from the circuit signal of the telephone line 11 linked to this line connection section 12. Moreover, this text display function section 14 changes the reduced sound signal Ssw concerned in the period in which volume was reduced into an alphabetic data Dw, and the signal-processing section 4 displays on Screen 13 based on this alphabetic data Dw while being equipped with the text display function section 14 which displays the reduced voice concerned on Screen 13 of the television basic function section 3 in the character W based on having reduced volume. Furthermore, the signal-processing section 4 is equipped with the storage processing section 15 which memorizes the image data concerning the video signal Svm corresponding to the voice data concerning the reduced sound signal Ssm concerned in the period in which volume was reduced, and/or the sound signal Ssm concerned, and the regeneration function part

16 which reads the voice data and/or image data which were memorized in the storage processing section 15 concerned, and is reproduced by the television basic function section 3.

[0008] Thereby, while it is automatic and performing processing to which the volume of voice [in / the television basic function section 3 of an ON state / in the signal-processing section 4] if the telephone state detecting element 2 detects the arrival or the beginning of using of Telephone T is reduced, if the telephone state detecting element 2 detects the signed off of Telephone T, it will be automatic and processing to which the signal-processing section 4 returns volume to the state before the beginning of using of Telephone T will be performed. Therefore, even if it is the case where the telephone call has been got during viewing and listening of the television basic function section 3, while the fault to which the voice of the television basic function section 3 becomes obstructive is avoided, even if it is under viewing and listening, it can know having got the telephone call certainly. The text display function section 14 which displays the reduced voice concerned on the signal-processing section 4 on Screen 13 of the television basic function section 3 in the character W on the other hand based on having reduced volume is formed. If it is made to display on Screen 13 based on this alphabetic data Dw while changing the reduced sound signal Ssw concerned in the period in which volume was reduced into an alphabetic data Dw, other viewers who have not appeared in a viewer and a telephone on the telephone can check the audio content by viewing. Furthermore, the storage processing section 15 which memorizes the image data concerning the video signal Svm corresponding to the voice data concerning the reduced sound signal Ssm concerned in the period which reduced volume in the signal-processing section 4, and/or the sound signal Ssm concerned, If the regeneration function part 16 which reads the voice data and/or image data which were memorized in the storage processing section 15 concerned, and is reproduced by the television basic function section 3 is formed, it can view and listen to the content of the voice interrupted on the telephone after the telephone end, and/or an image.

[0009]

[Example] Next, the suitable example concerning this invention is given and it explains in detail based on a drawing.

[0010] First, the composition of the receiving set 1 concerning this example is explained with reference to drawing 1 - drawing 5 . In addition, drawing 1 shows the whole receiving set 1 composition, and drawing 2 - drawing 5 show the composition of each part, respectively.

[0011] Among drawing 1 , one is a receiving set and this receiving set 1 contains the television basic function section 3 equivalent to the function of a common television-receiver main part, and the attached circuit portion which is attached according to this invention. Moreover, a receiving set 1 is equipped with various connections. 21 is an antenna connection and connects an antenna 81 to this antenna connection 21. 22 is a video device connection and connects the video devices (VTR, DVD, etc.) 82 to this video device connection 22. Furthermore, it has the line connection section 12 and the telephone line 11 is connected to this line connection section 12. Thereby, the beginning of using (arrival of the mail) or the signed off of Telephone T is detectable from the circuit signal of the telephone line 11. Moreover, it has two or more auxiliary input sections 24 and 25, a microphone (sense-of-pitch sensor) 26 is connected to the auxiliary input section 24, and the human body sensor 27 is connected to the auxiliary input section 25. In addition, the same auxiliary input section is prepared and a gas sensor, a fire detector, etc. can be connected.

[0012] On the other hand, the television basic function section 3 outputs voice from loudspeaker 32 -- while displaying an image on Screen 13 of a display (Braun tube) 31 based on the input from an antenna 81 and the video device 82. Therefore, in the receiving set 1 shown in drawing 1 , the RF receive section 33, the video-signal processing section 34, and the sound signal processing section 35 constitute the television basic function section 3. On the other hand, in a receiving set 1, as for the processing judgment section and 15, 36 is [the storage processing section and 37] the voice-transliteration processing sections, and these constitute the attached circuit portion which is attached according to this invention with a part of video-signal processing section 34 and sound signal processing section 35.

[0013] Moreover, the video-signal processing section 34 is equipped with the input change-over switch 51, the this image / alphabetic information separation section 52, the character video-signal generation section 53, the first superposition processing section 54, the second superposition processing section 55, the judgment section 56, the output change-over switch 57, and the image output section 58 as shown in drawing 2 . Furthermore, as shown in drawing 3 , while the sound signal processing section 35 is equipped with the input change-over switch 61 and the amplification processing sections 62, 63, and 64, the voice-transliteration processing section

37 is equipped with the speech recognition section 71 and the character image generation section 72 as shown in drawing 4 . Moreover, the processing judgment section 36 equips the speech recognition section 43 with reference data memory 43m while being equipped with the speech recognition section 43 linked to the input side of the telephone state detecting element 2, two or more level detecting elements 41 and 42, and the level detecting element 41, the logic judgment section 44, the memory control signal output section 45, the image control signal output section 46, and the voice-control signal output part 47, as shown in drawing 5 .

[0014] A function including the connection state of each circuit block shown in drawing 1 - drawing 5 is explained together with operation of the receiving set 1 mentioned later. In addition, any of hardware and software may realize the function of such each circuit block.

[0015] Next, operation of an attached circuit portion is especially explained according to the receiving set 1 concerning this example, and the flow chart shown in drawing 6 , referring to drawing 1 - drawing 5 , and drawing 7 .

[0016] Now, the electric power switch of a receiving set 1 is turned ON, and a televiewer assumes the state where it is viewing and listening to the image and voice based on the television basic function section 3. In this case, the RF signal received with the antenna 81 is amplified and detected by the RF receive section 33, and a video signal Svo and a sound signal Sso are taken out. A video signal Svo is given to the video-signal processing section 34 as shown in drawing 2 . The input change-over switch 51 with which the video-signal processing section 34 is equipped is switched to the position which incorporates a video signal Svo, and the output change-over switch 57 is switched to the position which outputs this video signal Sv_x from this image / alphabetic information separation section 52 as it is. This image / alphabetic information separation section 52 is circuits which separate the alphabetic information signal Sv_w for teletexts sent together with this video signal Sv_x and this video signal Sv_x of this from a video signal Svo. Therefore, this video signal Sv_x separated by this image / alphabetic information separation section 52 is given to the image output section 58 through the output change-over switch 57, and the image based on the video signal Sv processed by the image output section 58 is displayed on Screen 13 of a display 31.

[0017] On the other hand, the alphabetic information signal Sv_w outputted from this image / alphabetic information separation section 52 is given to the character video-signal generation section 53. Thereby, while the character video-signal generation section 53 generates the alphabetic information video signal St_w, this alphabetic information video signal St_w is given to the first superposition processing section 54. The first superposition processing section 54 superimposes this video signal Sv_x and the alphabetic information video signal St_w, and generates the first superposition video signal Sa, and this first superposition video signal Sa is given to the output change-over switch 57. In addition, it is switched by the change signal Sca outputted by pushing the predetermined selection key with which the remote control 91 shown in drawing 7 is equipped, and, as for the input change-over switch 51, the video signal Sv_m based on the image data read from the storage processing section 15 which is given by this input change-over switch 51 from the video signal Svo and the video device connection 22 from the RF receive section 33, and which it video-signal-Sv_v(s) or is mentioned later is incorporated alternatively.

[0018] On the other hand, a sound signal Sso is given to the sound signal processing section 35 shown in drawing 3 . The input change-over switch 61 with which the sound signal processing section 35 is equipped is switched to the position which incorporates a sound signal Sso, and the sound signal Sso concerned is given to the input side of the amplification processing sections 62, 63, and 64. And the amplified sound signal Ss which is outputted from the amplification processing section 64 is given to loudspeaker 32 --, and is outputted as voice. The input change-over switch 61 interlocks, and is switched to the input change-over switch 51, and the sound signal Ssm based on the voice data read from the storage processing section 15 which is given by this input change-over switch 61 from the sound signal Sso and the video device connection 22 from the RF receive section 33, and which it sound-signal-Ss_v(s) or is mentioned later is incorporated alternatively. In addition, Scb is a change signal which switches the input change-over switch 61. On the other hand, while the amplified sound signal Ssm which is outputted from the amplification processing section 62 is given to the storage processing section 15, the amplified sound signal Ssw which is outputted from the amplification processing section 63 is given to the voice-transliteration processing section 37.

[0019] therefore, the television signal (a video signal and sound signal) given from an antenna 81 or the video device 82 when viewing and listening to a receiving set 1 in the usual state -- as it is -- graphic display -- and a voice output is carried out

[0020] Next, the case where the telephone call has been got under such a situation is assumed. In this case, a televiewer can appear in a telephone ordinarily, without operating a receiving set 1. The telephone state detecting element 2 with which the processing judgment section 36 shown in drawing 5 is equipped on the other hand detects the beginning of using (arrival of the mail) of Telephone T based on the circuit signal of the telephone line 11 (Steps S1 and S2). Thereby, a detecting signal Sd outputs from the telephone state detecting element 2 (Step S3), and this detecting signal Sd is given to the memory control signal output section 45, the image control signal output section 46, and the voice-control signal output part 47 through the logic judgment section 44, respectively.

[0021] Consequently, by giving a detecting signal Sd, the voice-control signal output part 47 outputs the voice-control signal Sds, and performs processing to which the volume of the voice in the television basic function section 3 of an ON state is reduced by giving the sound signal processing section 35 shown in drawing 3 (step S4). That is, the voice-control signal Sds is given to the amplification processing section 64 with which the sound signal processing section 35 is equipped, and the signal level of the sound signal Ss outputted from the amplification processing section 64 falls by changing the amplification degree of the amplification processing section 64. In addition, when muffling reducing volume, it contains.

[0022] Therefore, trouble is made to a partner, without the voice of a receiving set 1 becoming obstructive during reception of a telephone, for example, being able to catch a partner's voice, even if it is the case where the telephone call has been got during viewing and listening of a receiving set 1, or the problem of hearing important business wrong is avoided certainly. In this case, since the volume of the voice in the television basic function section 3 falls before appearing in the got telephone, a televiewer can know having got the telephone call certainly.

[0023] Moreover, the amplified sound signal Ssw which is outputted from the amplification processing section 63 is given to the speech recognition section 71 with which the voice-transliteration processing section 37 shown in drawing 4 is equipped. Thereby, the speech recognition section 71 changes voice into an alphabetic data Dw by analyzing Recognition Ssw, i.e., a sound signal, and this alphabetic data Dw is changed into the character video signal Sw by being given to the character image generation section 72. And while this character video signal Sw is given to the second superposition processing section 55 of the video-signal processing section 34 shown in drawing 2 and this video signal Sv_x is overlapped, the second superposition video signal Sb outputted from the second superposition processing section 55 is given to the output change-over switch 57.

[0024] On the other hand, by receiving a detecting signal Sd, the image control signal output section 46 outputs the image control signal Sdv, and gives it to the judgment section 56 with which the video-signal processing section 34 shown in drawing 2 is equipped. Moreover, the distinction signal Sj concerning the existence of alphabetic information is given to this judgment section 56 from the character video-signal generation section 53. The judgment section 56 outputs the change signal Scc based on the image control signal Sdv and the distinction signal Sj, and switches the output change-over switch 57. The second superposition video signal Sb which the character video signal Sw superimposed on the first superposition video signal Sa or this video signal Sv_x which the alphabetic information video signal Stw superimposed on this video signal Sv_x mentioned above and this video signal Sv_x is given to the output change-over switch 57, and it is alternatively outputted to it by the change of the output change-over switch 57.

[0025] If a setup which gives priority to the alphabetic information video signal Stw (the first superposition video signal Sa) is performed as opposed to the judgment section 56, therefore, the judgment section 56 If the distinction signal Sj is judged and there is alphabetic information from the character video-signal generation section 53 when the image control signal Sdv is given While outputting the change signal Scc switched to the position which the first superposition video signal Sa outputs to the output change-over switch 57 If there is no alphabetic information from the character video-signal generation section 53, the change signal Scc switched to the position which the second superposition video signal Sb outputs to the output change-over switch 57 will be outputted. Of course, a setup which gives priority to the character video signal Sw (the second superposition video signal Sb) can also be performed.

[0026] Thereby, as shown in drawing 7, the character [in / Screen 13 of the display 31 on which this image is displayed] W based on the character video signal Sw or the alphabetic information video signal Stw to the lower part is displayed (Step S5). Generation of such the character video signal Sw and the alphabetic information video signal Stw and the display of the character W further based on this will be a function based on the text display function section 14. In addition, as a display of the character W, various display modes, such

as presenting of all information, a display of only language, and a display that shortened language (summary), are contained.

[0027] Therefore, the televiewer under reception to a telephone and other televiewers who have not appeared in a telephone while being able to see the character W corresponding to voice can see the character W concerned by the function of such the text display function section 14 under the state to which volume fell (silence). Therefore, the fault which overlooks a program to watch by telephone got suddenly is canceled.

[0028] By receiving a detecting signal Sd, the memory control signal output section 45 outputs the memory control signal Sdm, and memorizes the image data concerning the video signal Svm corresponding to the voice data concerning the sound signal Ssm in the period in which volume was reduced, and the sound signal Ssm concerned in the memory of the storage processing section 15 by giving the storage processing section 15 further again (Step S6). In this case, the video signal in the period in which volume was reduced may be memorized as it is, in order to avoid that memory space becomes large, the frame (still drawing) of a fixed time interval may be memorized, and data compression processing may be performed and memorized.

[0029] And if a telephone is completed and it carries out on hook [of the telephone T], the telephone state detecting element 2 will detect the signed off of Telephone T from the circuit signal of the telephone line 11. Consequently, from the telephone state detecting element 2, the detecting signal Sd based on detection of a signed off outputs, and this detecting signal Sd is given to the memory control signal output section 45, the image control signal output section 46, and the voice-control signal output part 47 through the logic judgment section 44. Therefore, the memory control signal Sdm, the image control signal Sdv, and the voice-control signal Sds based on detection of a signed off of Telephone T are outputted, and the processing to which volume is returned to the state before detection of the beginning of using (arrival of the mail) is made to perform from the storage control signal output part 45, the image control signal output section 46, and the voice-control signal output part 47. (Steps S7 and S8) . That is, the amplification degree of the amplification processing section 64 is changed into the original state, and while the output change-over switch 57 is switched to the position which only this video signal Svx outputs, processing which stops the writing of the image data and voice data to the storage processing section 15 is performed.

[0030] In this case, the data memorized in the storage processing section 15 are held. If the reproduction key 92 with which the remote control 91 which follows, for example, is shown in drawing 7 after a program end in commercials is equipped was pushed, after the image data concerning the voice data concerning the sound signal Ssm memorized in the storage processing section 15 by switching the input change-over switches Sca and Scb and a video signal Svm will be read and being changed into a sound signal Ssm and a video signal Svm, the television basic function section 3 is reproduced. The graphic display and the voice output by the data memorized in such the storage processing section 15 serve as a function based on the regeneration function part 16. Therefore, the fault accompanying viewing and listening of a receiving set 1 being interrupted is canceled, and convenience is raised more, such as overlooking a program watching by telephone got suddenly.

[0031] On the other hand, a microphone 26 is connected to the auxiliary input section 24, and it enabled it for this microphone 26 to detect the ringing tone of Telephone T, the chime of an interphone, a televiewer's instruction voice, etc. in the example. The ringing tone of Telephone T, the chime of an interphone, a televiewer's instruction voice, etc. are more desirably registered into reference data memory 43m built in the speech recognition section 43 as reference data beforehand. actually in this case, with a microphone 26 What is necessary is just to detect the ringing tone of the telephone T concerned, the chime of an interphone, a televiewer's instruction voice, etc. as compared with the registered reference data, if the ringing tone of Telephone T, the chime of an interphone, a televiewer's instruction voice, etc. are sensed. In instantiation, when the telephone line 11 cannot be connected, while detection of the ringing tone of Telephone T can detect the beginning of using, a televiewer's instruction voice can detect a signed off, when the telephone line 11 cannot be connected. Moreover, the chime of an interphone can make the same processings as the case of the aforementioned telephone T, such as detecting a visitor and reducing the volume of a receiving set 1, perform, when the distance of a receiving set 1 and the door is near like an one-room system apartment house. Therefore, detection of a visitor can install the human body sensor 27 near the door, and can also be performed by connecting this human body sensor 27 to the auxiliary input section 25. Furthermore, when the same auxiliary input section is prepared and a gas sensor, a fire detector, etc. are connected, according to sensing results, such as a gas sensor and a fire detector, it registered beforehand, for example, a character, such as "being gas leakage", can be displayed on Screen 13 like the aforementioned character W. The alphabetic data in this case is

storable in a part of storage area in the storage processing section 15.

[0032] As mentioned above, although the example was explained in detail, this invention is not limited to such an example, and can be arbitrarily changed, added and deleted in the composition of details, technique, etc. in the range which does not deviate from the summary of this invention. For example, you may give the input to the auxiliary input section from home use LAN etc. Furthermore, the voice data and image data which are memorized in the storage processing section 15 may be only either.

[0033]

[Effect of the Invention] Thus, in order it equips the receiving set concerning this invention with the signal-processing section which performs the processing to which volume returns to the state before the beginning of using of telephone if it detects the signed off of telephone while performing the processing to which the volume of the voice in the television basic function section of an ON state reduces, if the telephone state detecting element which detects the state of telephone, and this telephone state detecting element detect the arrival or the beginning of using of telephone, it does following remarkable effects so.

[0034] ** Trouble can be made to a partner, without the voice of a receiving set becoming obstructive during reception of a telephone, for example, being able to catch a partner's voice, even if it is the case where the telephone call has been got during viewing and listening of a receiving set, or the problem of hearing important business wrong can be avoided certainly.

[0035] ** If the text display function section which displays the reduced voice concerned on the signal-processing section on the screen of the television basic function section in a character based on having reduced volume is prepared according to the gestalt of suitable operation Since the televisioner under reception to a telephone and other televisioners who have not appeared in a telephone while being able to see the character corresponding to voice can see the character concerned under the state to which volume fell (silence), the fault which overlooks a program to watch by telephone got suddenly is cancelable.

[0036] ** The storage processing section which memorizes the image data concerning the video signal corresponding to the voice data which starts the reduced sound signal concerned in the period which reduced volume in the signal-processing section according to the form of suitable operation, and/or the sound signal concerned, If the regeneration function part which reads the voice data and/or image data which were memorized in the storage processing section concerned, and is reproduced by the television basic function section is prepared For example, it can view and listen to the program portion interrupted when the telephone call had been got in commercials and after a program end, and convenience can be raised more.

[Translation done.]

迷惑をかけたり、或いは大事な用件を聞き間違えてしまうなどの問題を確実に回避できる。

【0035】㊲ 好適な実施の形態により、信号処理部に、音量を低下させたことに基づいて当該低下させた音声文字によりテレビジョン基本機能部の画面に表示する文字表示機能部を設ければ、電話に应对中の視聴者も音声に対応した文字を見ることができるとともに、電話に出ていない他の視聴者も音量が低下（消音）した状態で当該文字を見ることができると、突然かかってきた電話によって見たい番組を見逃してしまう不具合を解消できる。

【0036】㊳ 好適な実施の形態により、信号処理部に、音量を低下させた期間における当該低下させた音声信号に係る音声データ及び／又は当該音声信号に対応する映像信号に係る映像データを記憶する記憶処理部と、当該記憶処理部に記憶した音声データ及び／又は映像データを読み出してテレビジョン基本機能部により再生する再生処理機能部を設ければ、例えば、コマーシャル中或いは番組終了後に、電話がかかってきたことにより中断された番組部分を視聴でき、より利便性を高めることができる。

【図面の簡単な説明】

【図1】本発明の好適な実施例に係る受信装置のブロック系統図、

【図2】同受信装置における映像信号処理部のブロック系統図、

【図3】同受信装置における音声信号処理部のブロック系統図、

【図4】同受信装置における音声-文字変換処理部のブロック系統図、

【図5】同受信装置における処理判断部のブロック系統図、

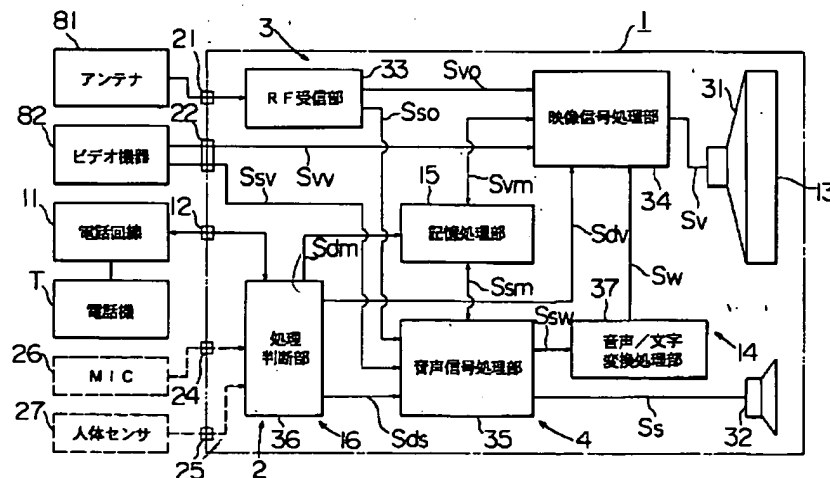
【図6】同受信装置の動作を説明するためのフローチャート、

【図7】同受信装置及びリモコンの外観図、

【符号の説明】

- | | |
|-----|-------------|
| 1 | 受信装置 |
| 2 | 電話機状態検出部 |
| 3 | テレビジョン基本機能部 |
| 4 | 信号処理部 |
| 11 | 電話回線 |
| 12 | 回線接続部 |
| 13 | 画面 |
| 14 | 文字表示機能部 |
| 15 | 記憶処理部 |
| 16 | 再生処理機能部 |
| T | 電話機 |
| W | 文字 |
| Dw | 文字データ |
| Ssw | 音声信号 |
| Ssm | 音声信号 |
| Svm | 映像信号 |

【図1】



```

graph TD
    Start([開始]) --> S1[画面監視]
    S1 --> S2{使用開始(着信)を検出か?}
    S2 --> S3[検出信号出力]
    S3 --> S4[音量→低下(消音)]
    S4 --> S5[音声→画面に文字表示]
    S5 --> S6[音声信号及び映像信号→記憶]
    S6 --> S7{使用終了を検出か?}
    S7 --> S8[復帰処理]
    S8 --> End([終了])
    S2 --> S1
    S7 --> S4
  
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【図7】

